

24A

Fig. 24A is a top schematic view of a peristaltic pumping system.

Fig. 24B is a sectional elevation view along line 24B-24B in Fig. 24A

Fig. 25 is a graph showing experimentally achieved pumping rates vs. frequency for an embodiment of the peristaltic pumping system of Fig. 24.

5 Fig. 26A is a top schematic view of one control line actuating multiple flow lines simultaneously.

Fig. 26B is a sectional elevation view along line 26B-26B in Fig. 26A

Fig. 27 is a schematic illustration of a multiplexed system adapted to permit flow through various channels.

10 Fig. 28A is a plan view of a flow layer of an addressable reaction chamber structure.

Fig. 28B is a bottom plan view of a control channel layer of an addressable reaction chamber structure.

15 Fig. 28C is an exploded perspective view of the addressable reaction chamber structure formed by bonding the control channel layer of Fig 28B to the top of the flow layer of Fig 28A.

Fig. 28D is a sectional elevation view corresponding to Fig. 28C, taken along line 28D-28D in Fig. 28C.

20 Fig. 29 is a schematic of a system adapted to selectively direct fluid flow into any of an array of reaction wells.

Fig. 30 is a schematic of a system adapted for selectable lateral flow between parallel flow channels.

Fig. 31A is a bottom plan view of first layer (i.e.: the flow channel layer) of elastomer of a switchable flow array.

25 Fig. 31B is a bottom plan view of a control channel layer of a switchable flow array.

Fig. 31C shows the alignment of the first layer of elastomer of Fig. 31A with one set of control channels in the second layer of elastomer of Fig. 31B.

30 Fig. 31D also shows the alignment of the first layer of elastomer of Fig. 31A with the other set of control channels in the second layer of elastomer of Fig. 31B.

Fig. 32 is a schematic of an integrated system for biopolymer synthesis.

Fig. 33 is a schematic of a further integrated system for biopolymer synthesis.